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Environmental Assessment
EA-NV-030-06-026

CITY OF FERNLEY
HIGHLANDS SE WATER TANK PROJECT
RIGHTS-OF-WAY
Fernley, Nevada

Case File # N-81057

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ACRONYMS AND ABBREVIATIONS

ACOE	U.S. Army Corps of Engineers
BLM	U.S. Bureau of Land Management
BMP	Best Management Practice
CEQ	Council on Environmental Quality
CFR	U.S. Code of Federal Regulations
IBA	Important Bird Area
MG	Million Gallon
NAC	Nevada Administrative Code
NEPA	National Environmental Policy Act
NDEP	Nevada Division of Environmental Protection
NNHP	Nevada Natural Heritage Program
KOP	Key Observation Point
ROW	Right-of-Way
USFWS	U.S. Fish and Wildlife Service
VRM	Visual Resource Management

CHAPTER 1
INTRODUCTION / PURPOSE AND NEED

1.1 INTRODUCTION

The City of Fernley is proposing to construct, operate, and maintain a new three-million-gallon (3 MG) water supply and storage tank, associated buried water transmission main, and access road on the southeast side of the City of Fernley, in Lyon County, Nevada (Figure 1). The proposed Highlands SE Tank Project would be located in the southeast quarter of Section 28, Township 20 North, Range 25 East M.D.B.M. (Figure 2). The City of Fernley has applied for a Right-of-Way (ROW) for the tank site, tank access road, and associated water transmission main paralleling Partridge Road, all of which would cross public land managed by the U.S. Bureau of Land Management (BLM) Carson City Field Office (BLM Case File No. N-81057).

Construction of the proposed Highlands SE Tank would be financed and accomplished by a private real estate developer, hereafter referred to as the Developer. Upon completion of construction, the Developer would dedicate the facilities to the City of Fernley. The City would ultimately own, operate and maintain the proposed Highlands SE tank, access road, and associated water main facilities.

The proposed Highlands SE Water tank and water transmission main would be connected to the existing City water system via a new water transmission main (the Desert Shadows Main) to be constructed as a separate action within an existing disturbed utility easement/ROW located primarily on the north side of Desert Shadows Lane (Figure 3).

1.2 PURPOSE AND NEED

The purpose of the proposed project is to construct, operate, and maintain a water storage and supply tank to serve on-going and planned residential development in southeast Fernley, Nevada. The tank would serve 2,400 water users in the tank service area at predicted usage of about 1.68 MG per day.

The need for the project arises from the on-going and planned residential development in southeast Fernley. The City currently operates three water storage tanks: the 2.5 MG Sage Tank, which serves southwest Fernley, the 2.5 MG Northeast Tank, which serves northeast Fernley, and the 1.5 MG Ricci Tank (Figure 3), which serves south and central Fernley. The majority of the City's growth has occurred in central Fernley and along the Farm District Road area of southeast Fernley, which has placed a disproportionate demand on the smallest of the three City water tanks, the Ricci Tank. Presently, four new residential subdivisions, with about 1,300 new single family homes, and a new elementary school are planned for southeast Fernley, which would place an even greater demand on the Ricci Tank. The City has identified an urgent need for a new water tank to be located south of Desert Shadows Lane to provide service to the planned new developments in southeast Fernley. At present, the City has no available storage capacity to support new development in southeast Fernley. The proposed Highlands SE tank is urgently needed to provide adequate operational storage and emergency storage of water in accordance with Nevada Administrative Code 445A.6674 for new development, to provide water storage and adequate flow rates for fire-fighting requirements in the developing southeast, and to provide service to new pressure zones located south

of the Truckee Canal. The proposed new tank would also enhance fire-fighting flows and water pressure along the Farm District Road, north of the Truckee Canal.

1.3 NEPA COMPLIANCE AND LAND USE PLAN CONFORMANCE STATEMENT

The purpose of this Environmental Assessment is to provide the public and government agencies with information about the potential environmental consequences of the proposed project and to identify practical means for avoiding or reducing any of the project's potential adverse environmental effects. In addition, the Environmental Assessment serves as a disclosure document for the BLM in making an informed decision on the project.

This Environmental Assessment was prepared in accordance with the National Environmental Policy Act (NEPA) and applicable regulations and guidance passed subsequently, including the Council on Environmental Quality (CEQ) regulations (Title 40 Code of Federal Regulations [CFR] Parts 1500-1508), guidelines listed in the BLM *NEPA Handbook, H-1790-1* (BLM, 1988), and the BLM Carson City Field Office's *NEPA Compliance Guidebook for Environmental Assessments, Categorical Exclusions, and Determinations of NEPA Adequacy* (BLM, 2002).

The proposed action is in conformance with the Carson City Field Office *Consolidated Resource Management Plan*, page LND-7, Administrative Actions #6 (BLM, 2001).

CHAPTER 2
PROPOSED ACTION AND ALTERNATIVES

2.1 PROPOSED ACTION

The City of Fernley has applied to the BLM for a ROW for a 3 MG water supply and storage tank, the Highlands SE Tank, and an associated buried water transmission main and tank access road on public land in the southeast part of Fernley (Figures 1 and 2). The City of Fernley has provided design of the tank; construction would be financed and accomplished by the Developer. The City would ultimately own, operate and maintain the proposed Highlands SE tank, access road, and associated water main facilities. The proposed Highlands SE Tank and water transmission main would be connected to the existing City of Fernley water system via the Desert Shadows transmission main, which is to be constructed as a separate action (Section 2.1.3) within existing disturbance and within an existing utility easement and ROW (Figure 3).

The ROW requested by the City would consist of : 1) 6.5 acres for the proposed Highlands SE tank site; 2) a ROW 100 feet wide by 1,250 feet long, encumbering 2.9 acres, to contain the tank access road and buried water transmission main; and 3) a ROW 30 feet wide and 4,450 feet long for the buried water transmission main on the west side of Partridge Road to its intersection with the Desert Shadows Main (Figures 2 and 3), encumbering 3.1 acres. The proposed tank site includes room for a possible second tank (Figure 4). The 100-foot width of the tank access road ROW is required to accommodate cut and fill slopes required for construction of the tank access road. The total acreage of the ROW request is about 12.5 acres. As described in Section 2.1.3 and 2.1.4 below, construction of proposed project features would disturb only portions of the requested ROW.

2.1.1 Location and Access

Access to the proposed Highlands SE tank site is from Partridge Road, an existing unimproved road located partly on private land and partly on public land, approximately paralleling the boundary of Section 27 and 28 (Figure 2). Access to Partridge Road is currently from Desert Shadows Lane via Gustafson Lane south from the Farm District Road (Figure 3). Another future access to Desert Shadows Lane is to be constructed at the new Clearwater Parkway from the planned Truckee River Ranch Development (Figure 3). It is anticipated that the Clearwater Parkway access will be completed by early 2007. If this new access point is available by the start of construction for the proposed Highlands SE water tank project, it would be the primary access route for both construction and maintenance of the proposed Highlands SE Tank.

2.1.2 Description of Facilities

The following describe the proposed Highlands SE Tank and associated facilities. Construction is described in Section 2.1.4. Table 1 in Section 2.1.4 presents estimated surface disturbance associated with construction of the Proposed Action.

Highlands SE Water Supply and Storage Tank

The proposed Highlands SE water supply/storage tank would consist of a 3-MG-capacity welded steel tank. The proposed water tank design would incorporate seismic considerations in accordance with American Water Works Association Design Standard D100 (AWWA D100). Such considerations include the tank's steel shell thickness, the amount of freeboard, and the tank's diameter-to-height ratio. The tank contractor would be required by the City of Fernley to submit

shop drawings and structural calculations in accordance with AWWA D100 for review by the City of Fernley Engineering Division.

The proposed tank would be constructed on a site against a hillside in the southeast quarter of Section 28, Township 20 North, Range 25 East, at a pad elevation of about 4,504 feet (Figures 2 and 4). The tank would be about 40 feet high and about 115 feet in diameter. The color of the tank exterior coating would be a dark tan or brown (corresponding to match BLM's Standard Environmental Color Chip "Carlsbad Canyon--2.Y 6/2), to blend with the existing natural landscape at the site. The top of the tank would not extend above the natural skyline. A ten-foot-high earthen berm would be constructed around the down slope sides of the tank within the line-of-sight from the existing residential area located in Section 27 east of Partridge Road (Figure 3) to reduce visibility of the tank (Figure 4). Some material for the berm would originate from on site; additional material may need to be imported.

Figure 4 presents a plot plan of the tank site showing the placement of the tank within the requested ROW; the site provides sufficient room for a possible future second tank. The proposed tank site would cut be into the existing hill slope to create a level tank pad. Cut and fill slopes would be kept to maximum steepness of 2:1 slopes, with excavated materials to be used as fill to create a level tank site, for the tank access road, and for the earthen berm (Figure 4). In some cases, fill slopes would be gentler 3:1 slopes (Figure 4). Additional material may be imported for construction of the berm. To minimize the tank site footprint and provide slope stability, a rockery retaining wall would be constructed on the west side of the cut for the tank (Figure 4). The tank pad base would be finished with six inches of Type 2 gravel base. The base would be sloped to drain to an existing natural drainage. A V-ditch would be constructed around the upper edge of the cut slope to direct natural drainage from the hillside above away from the tank site. The tank overflow and drain outfall would terminate at an existing drainage channel located on the eastern edge of the tank site; this channel flows south and then southwest across public land in Section 28 (Figure 5). Security fencing (six-foot-high cyclone fencing constructed inside the berm) would enclose the tank site.

Tank Site Access Road

An access road to the tank site from Partridge Road would be constructed within the requested 100-foot-wide ROW across public land that would also contain a buried water transmission main from the tank described below (Figures 2 and 4). Figure 6 presents details of the tank access road. The proposed tank site access road would extend about 1,250 feet from Partridge Road to the tank site. The proposed tank access road would have a 20-foot-wide travel surface finished with a base of four to six inches of Type 2 gravel. The road would be constructed with 4-foot wide shoulders on both sides and a V-ditch on one side to direct drainage. The total constructed profile for the proposed access road, including the shoulders and V-ditch, would be 33 feet. A 36-inch culvert would be constructed beneath the road to perpetuate storm water drainage in the existing drainage crossed by the proposed road (Figures 4 and Figure 6). The inflow and outflow of the culvert would be protected with rock rip-rap.

Water Transmission Main

As part of the Proposed Action, a new water transmission main would be constructed from the proposed Highlands SE Tank and along the requested ROW adjacent to Partridge Road to connect with the City's existing water system via the Desert Shadows transmission main (Section 2.1.3). The proposed new Highlands SE water transmission main would consist of an 18-inch PVC pipe buried

to a minimum depth of 5.5 feet. The new water transmission main would be buried within the approximate center of the proposed tank access road (Figures 4 and Figure 6) and within the proposed 30-foot ROW on public land that parallels the eastern boundary of Section 28 (Figure 2). The proposed ROW on public land parallels an existing utility easement on private land on the western boundary of Section 27, that would also be used for construction of the proposed new water main. Partridge Road, an unimproved dirt road, is located in the area proposed for construction of the new Highlands SE water transmission main.

2.1.3 Associated Facilities

As part of a separate action, the Desert Shadows water transmission main would be constructed from the terminus of the existing City water system at City Well #4 at the end of Mull Lane, east of Ricci Lane, and along the north side of Desert Shadows Lane to its intersection with Partridge Road, where it would connect to the proposed water transmission main from the Highlands SE tank (Figure 3). The Desert Shadows transmission main would be constructed as a separate action by a private developer within an existing utility ROW. The portion of this existing ROW that crosses public land is permitted as BLM ROW N-43685; this existing ROW on public land is shown on Figure 3. The ROW is held by Lyon County. The City of Fernley is coordinating with Lyon County for approval of construction of the Desert Shadows main within the ROW or for transfer of the ROW to the City. Upon completion of construction of the Desert Shadows main, it would be dedicated to the City.

The Desert Shadows water transmission main would consist of an 18-inch transmission main buried to a minimum depth of 5.5 feet. Construction would be similar to that described for the water transmission main that is part of the Proposed Action (Section 2.1.5). Construction of the Desert Shadows Main would be entirely within existing disturbance and would create no new disturbance of either public or private land. Following placement of this water main, Desert Shadows Lane would be paved from Ricci Lane to Partridge Road.

2.1.4 Project Disturbance

Table 1 presents the total surface disturbance of public and private land that would be associated with construction of the Proposed Action. As discussed above, the Desert Shadows water transmission main, which is being constructed under a separate action, will not create any new disturbance to public or private land.

Table 1
Surface Disturbance Associated with Project Construction

Project Feature	Construction Disturbance (acres)	
	Public Land	Private Land
Highlands SE Tank Site (new disturbance)	2.6	0
Tank Access Road (new disturbance)	1.5	0
Water Transmission Main in ROW along Partridge Road (within existing disturbance)	1.24	1.22
Total	5.34	1.22

2.1.5 Construction

Construction of the proposed project would take about three months. Construction is tentatively

proposed to start in the late Fall of 2006. The construction workforce would consist of eight to ten individuals during construction of the water main and access road and four individuals during tank installation. Typical equipment used during construction would include the following:

bulldozer	road grader	backhoe
semi-truck trailers	flatbed truck	crane
pick-up trucks	water trucks	

The initial construction staging area for the project would be located within existing disturbance on private property north of Desert Shadows Lane. This area would continue to be used for staging of construction of the Highlands SE water transmission main. Once the tank access road and tank site are excavated, the staging area for tank construction would be the graded tank site. Therefore, construction staging would not disturb additional public land beyond that indicated in Table 1.

Water Supply and Storage Tank

The proposed tank site would cut be into the existing hill slope to create a level tank pad. Cut and fill slopes would be a maximum of 2:1 (Figure 4). Excavated materials from the cut would be utilized on-site as fill for the tank pad and tank access road and for the earthen berm to be constructed around the down slope sides of the tank. The tank site would be graded to approximately level (with a 1 percent slope for drainage) and finished with six inches of Type 2 gravel base. Care would be taken during construction that excavated materials are not pushed over onto the natural hill slope beyond that required to create fill to construct the tank site and berm.

Following construction and preparation of the tank site, the new tank would be brought onto site and erected using a crane. Following completion of connection to the new water transmission line and completion of construction of the new tank access road surface, a six-foot-high cyclone security fence would be constructed inside of the earthen berm to surround the tank site.

Water Transmission Main

A trench for placement of the new water transmission main would be excavated to a minimum depth of 5.5 feet within the ROW for the tank access road and within the 30-foot ROW adjacent to Partridge Road (Figures 2 and 4). Excavated material would be placed adjacent to the trench and replaced upon completion of construction and connection of the new water transmission main. The width of the trench would vary from about 4 to 12 feet, depending upon soil and bedrock characteristics and the contractor's shoring practices.

Upon completion of construction of the new water transmission main, final finishing of the road surface and related features for the proposed new tank access road would be completed as described below. For Partridge Road, grading would be completed to re-establish the original grade, existing 20-foot travel path, and existing drainage. There are no plans to improve Partridge Road as part of the proposed project.

Following project construction, Partridge Road would continue to be an access road under the City of Fernley road system and would be maintained by the City as such.

Tank Access Road

The proposed new tank access road would be initially rough graded to provide access for equipment to the tank site to complete the required cut and fill for the tank site. Material from the cut slopes

created for the tank site would be utilized as fill for final construction of the access road. Construction of the access road would include installation of a 36-inch culvert to perpetuate storm water drainage (Section 2.1.2). The culvert would be installed prior to construction of the water transmission main and would be beneath the main. Final grading and construction of the road surface of the access road would be completed after burial and construction of the proposed new water transmission main within the ROW.

2.1.6 Operations and Maintenance

The existing City Well No. 4 (Figure 3) would be the water source for the proposed new Highlands SE water tank. City Well No. 4 has been in operation since 1992. No new wells would be developed to supply the proposed Highlands SE tank.

The proposed Highlands SE tank would operate as a gravity-flow tank and would not involve any pumping. The proposed water tank would supply adequate water pressure and emergency storage to support on-going and planned residential development in the southeast portion of Fernley. The proposed Highlands SE water tank would operate on a daily basis and year round to meet domestic and fire-protection flow requirements. The average water use from the tank storage facility would be about 1.68 MG per day and would serve an estimated 2,400 users in the service area.

The tank would be inspected at appropriate intervals by City personnel. Inspection visits would involve a single City vehicle visiting the tank on a weekly or bi-weekly basis. Routine maintenance would be completed throughout the life of the tank. Major maintenance involving re-coating of the tank could be expected to occur at a maximum of every five years.

Access for maintenance and operations of the tank would be from the tank access road via Partridge Road from Desert Shadows Lane. Desert Shadows Lane and Partridge Road would be maintained by the City of Fernley as part of their road system. The City would also maintain the tank access road as necessary to ensure access to the tank site.

2.1.7 Environmental Protection Measures

The following Environmental Protection Measures are incorporated into the Proposed Action that would avoid and/or mitigate potential adverse effects.

1) The Developer and/or its contractors would implement Best Management Practices (BMPs) at all times during the construction and maintenance of the proposed tank site, access road and buried water transmission main to protect the environment. Appropriate BMPs contained in the Nevada Division of Environmental Protection (NDEP) in the *State of Nevada Best Management Practices Handbook* (NDEP, 1994) would be implemented. In addition, the Developer or its contractors would implement BMPs as appropriate related to in the Stormwater Pollution Prevention Plan to be prepared for the project, as required by the General Construction Stormwater Permit, and in a Dust Control Plan to be prepared as part of the Air Quality Surface Disturbance permit for the project, as required by the NDEP Bureaus of Water Pollution Control and Air Pollution Control (Section 2.1.8).

2) All surface disturbing activities would be limited to the requested ROWs. The initial construction staging area would be established on a private land parcel slated for future

development. The tank site within the requested ROW would serve as a staging area upon grading of the tank site.

3) The City would be responsible for weed control on disturbed areas within the ROWs. The Developer or its contractors would be responsible for coordination with BLM for seeding of the fill slopes and road shoulders and adjacent drainages and regarding other acceptable weed control measures.

4) Construction would be limited to the hours between 7:00 am and 5:00 pm to minimize disturbance to nearby residences. Contract documents would specify that the construction crew observe posted speed limits on local roads. Partridge Road and areas of construction disturbance would be watered as appropriate to minimize fugitive dust.

5) Project construction is planned for the Fall of 2006, outside of the migratory bird nesting season. In the unlikely event that a change in scheduling would require vegetation clearing during the migratory bird nesting season (generally May 14 through July 30), areas to be disturbed would be surveyed by a qualified biologist prior to disturbance. If active nests are located, a protective buffer would be delineated around these nests within which disturbance would be avoided until the young have fledged. The size of the protective buffer would be determined in coordination with BLM and based upon specific species requirements.

6) The Developer or its contractors would immediately report to the BLM any cultural resource discovered on public land by any person working on its behalf. Work would be suspended in the immediate area of such discovery until written authorization to proceed is issued by the BLM. An evaluation of the discovery would be made by the BLM to determine appropriate actions to prevent the loss of significant cultural or scientific values. If human remains are encountered during the Project operations, all work within 300 feet of the remains would cease and the remains would be protected. BLM would be immediately notified. If the remains are Native American, BLM would follow the procedures set forth in 43 CFR Part 10, Native American Graves Protection and Repatriation Regulations.

7) Proposed tank would be coated or painted a color to match BLM's Standard Environmental Color Chip "Carlsbad Canyon" (2.Y 6/2).

8) Based on public input during scoping, a ten-foot-high earthen berm would be constructed on the down slope sides of the tank and within the line-of-sight from the residential area east of Partridge Road (in Section 27) to provide partial visual screening of the tank (Figure 4). The berm would serve to mitigate visual effects to adjacent landowners and motorists on Desert Shadows Lane and Partridge Road.

2.1.8 Permits and Approvals

The following permits would be required to construct and operate the proposed water storage tank:

BLM -- Approval of a ROW, including preparation of an Environmental Assessment

Nevada Division of Environmental Protection (NDEP)

Bureau of Water Pollution Control - National Pollution Discharge Elimination System, General Construction Storm Water Permit

Bureau of Air Pollution Control - Surface Area Disturbance Permit, Dust Control Plan

Bureau of Safe Drinking Water - Review of plans and specifications

U.S. Army Corps of Engineers - Notification under Nationwide 14 of placement of fill within waters of the U.S. (for construction of the 36-inch culvert)

2.2 ALTERNATIVES TO THE PROPOSED ACTION

Alternatives considered for the Proposed Action (in addition to the No Action Alternative, Section 2.2.1) included an alternate tank site, alternate route for the water transmission main, and an elevated tank. These were eliminated based on discussion contained in Section 2.2.2.

2.2.1 No Action Alternative

The No Action Alternative is required to be considered by NEPA and the Council of Environmental Quality implementing regulations (40 CFR 1500-1508). Under the No Action Alternative, the ROWs for the proposed water storage/supply tank, water transmission main, and access road would not be granted. A new water supply/storage tank is required to meet increased water demand from new residential users associated with on-going and planned developments in the project area. The tank is also necessary to maintain adequate water pressure for residential users and for fire protection services in the area. Without a new water supply tank in the general project area, the reliability of the City's current water system in the area would be jeopardized. For these reasons, under the No Action Alternative, the most likely scenario is that the City would be required to select another site on private property in the area. This would result in a delay in construction based on acquisition and engineering requirement for a new site and increased costs to the City and its water users.

2.2.2 Alternatives Considered but Eliminated from Detailed Analysis

Alternative Tank Site

The following requirements were considered in site selection for the proposed water tank:

- **Proximity to planned residential developments in southeast Fernley:** The Ricci Tank, which is the only City tank that serves the southeast Fernley area, is insufficient to provide adequate water pressure and storage to support residential development planned for this area (Figure 3). Optimum hydraulics to supply existing users and planned developments in this area require that a new tank be sited south of the Truckee Canal and as far east as possible from the Ricci Tank (while still meeting other siting requirements set forth below).

- **Availability of public ROWs for location of water transmission main**: the Nevada Administrative Code (NAC) 445A.67145 requires that "*water mains must be installed in areas that are dedicated for public use as streets or highways or are otherwise sufficiently open to the public to facilitate access for maintenance and emergency repairs. Water mains may be constructed on private property…only if approved by the health authority*." To comply with this requirement, the City has a policy to locate its water transmission mains

within utility easements and/or ROWs associated with public streets and to avoid private property. The site selected for the proposed new tank would need to be adjacent to or in close proximity to an existing or planned public roadway.

- **Tank base at elevation of 4,150 feet or higher:** The base of the proposed new tank needs to be sited at an elevation of 4,150 feet or higher in order for the gravity feed tank to provide adequate water pressure for water service to planned developments.

- **Construct ability**: The selected site must meet reasonable slope steepness and accessibility requirements.

Only two sites were identified during the site screening process that met the above site requirements—the proposed site and an alternate site located on private property east of Partridge Road (shown on Figure 3). Potential sites that were west of the proposed site were either not close to existing or planned public roads (which would provide the required public utility easement/ROW requirement), or were too steep for optimum construction of the tank and access road without significant cuts and fills that would result in increased permanent disturbance and highly visible scars to the landscape.

The alternate site shown on Figure 3 is located on private property. Construction of the proposed tank and water transmission main at this site would involve several coordination issues, including purchase of the property to acquire the site. The water main would have to be routed through private property and would require dedication of a roadway for pipeline construction and City access to the tank. This roadway would need to follow a configuration commensurate with a development plan for future residential lot layout around the alternate site. However, development plans for adjacent parcels have not progressed to this point, and the timing of future lot layouts is uncertain. The alternate site would be closer to existing residences. Construction of the proposed tank at this site would be more expensive because of the additional costs for acquisition of private property and of dedicated easements across private property. Based on these considerations, the alternate site was eliminated from further consideration.

Alternative Route for Water Transmission Main

Per Nevada regulations (NAC 445A.67145) and City of Fernley policy, public water mains must be located within utility ROWs along public roads. Also, the land has been disturbed by the prior construction of Partridge Lane. Therefore, the proposed route along Partridge Road to Desert Shadows is the only reasonable alternative.

Elevated Tank

An elevated tank was not considered based on visual aesthetics and economics. Capital and operations and maintenance costs associated with an elevated tank are significantly greater than a ground-level tank.

Buried Concrete Tank

Construction of a buried concrete tank would create more surface disturbance than an aboveground tank and would cost approximately six times more. Based on these factors, a buried concrete tank was eliminated from further consideration.

CHAPTER 3
DESCRIPTION OF THE AFFECTED ENVIRONMENT

3.1 SCOPING AND ISSUE IDENTIFICATION

Internal project scoping was conducted by BLM Carson City Field Office specialists. A list of BLM personnel involved is presented in Section 5.1. Construction of the proposed tank and related facilities under the Proposed Action was presented at a meeting of the City of Fernley Commissioners on May 3, 2006, which was open to public participation. Also, BLM sent a letter and brief description of the Proposed Action to owners of private parcels in the vicinity of the proposed site on May 5, 2006. A copy of the letter and mailing list is included in Appendix A. The public comment period extended to June 7, 2006.

Three comments were received in response to the scoping letter; all were from homeowners from the residential area located in Section 27 east of Partridge Road (Figure 3). The following summarizes the issues raised in these comments relevant to the Proposed Action:

- visibility of the tank from existing residences and potential for reduced property values associated with altered view;
- potential for effects to domestic wells at residences in Section 27;
- construction traffic and associated dust generated on unpaved roads;
- increased traffic due to tank operation and maintenance;
- concerns that the tank would be an attractive nuisance to children and that the increased access represented by the tank access road would "increase crime";
- potential for noise from pumps and other equipment;
- effects on homeowners insurance rates.

Other issues were identified in the comments that related solely to City of Fernley issues, including maintenance of local roads, enforcement of speed limits on local roads, City taxes, and the City planning process. These issues are beyond the scope of BLM action and would be more appropriately addressed through citizen participation in the planning and legislative processes of the City.

On July 22, an on-site meeting was conducted with seven homeowners and residents of the existing residential area in Section 27, near the proposed site. Three of these individuals submitted formal comments during public scoping. The meeting was attended by representatives of the City of Fernley and the engineering and EA/environmental contractors for the project. Meeting topics included siting requirements for the tank, the site selection process, the identified alternate site on private land (Section 2.2.2), and the above issues. There was consensus that the alternate site should be eliminated from further consideration for construction of the proposed tank, based on its proximity to residences.

Concerns relating to the above-listed issues were discussed and resolved. Based on the results of discussions with the homeowners, a ten-foot-high earthen berm is incorporated into the Proposed Action (Section 2.1.7) to mitigate visual effects of the tank. The berm would be constructed on the down slope sides of the proposed tank within the line-of-sight from the residential area in Section 27 east of Partridge Road. The berm would provide partial screening of the tank from view to mitigate visual effects on residents.

3.2 CRITICAL ELEMENTS OF THE HUMAN ENVIRONMENT

As part of NEPA compliance, BLM requires EAs to address several critical elements of the environment that are required by statute, regulation, executive order, or State guidelines (BLM, 2002). Table 2 presents the critical elements of the human environment and indicates which were determined by BLM specialists during project scoping to be either not present or not affected by the Proposed Action, and which are brought forward for analysis in the EA. Table 2 also indicates which additional environmental resources were determined to be not present or not affected by the Proposed Action and which are brought forward for analysis.

Table 2
Critical Elements and Other Environmental Resources Applicable for the Proposed Action

Element	Brought Forward for Analysis	Not Present or Not Affected
BLM Critical Elements of the Human Environment		
Air Quality	X	
Areas of Critical Environmental Concern		X
Cultural Resources	X	
Environmental Justice		X
Farmlands (Prime or Unique)		X
Floodplains		X
Migratory Birds	X	
Invasive, Nonnative Species	X	
Native American Religious Concerns	X	
Threatened or Endangered Species	X	
Solid and Hazardous Waste		X
Visual Resources	X	
Water Quality	X	
Wetland, Riparian Zone	X	
Wild and Scenic Rivers		X
Wilderness		X
Additional Resources		
Administrative Land Uses	X	
Range Resources		X
Soils and Geology	X	
Socioeconomics		X
Vegetation/Wildlife	X	
Wild Horses and Burros		X
Recreation		X

3.3 GENERAL SETTING

The proposed project is on the southeast side of the City of Fernley, within Lyon County, Nevada. The setting is suburban/rural, on the outskirts of suburban areas of Fernley. The tank site and access road are on the south-facing slopes of a topographic rise. Adjacent land uses include residential development and public lands administered by the BLM. Lands within the immediate project area are partially disturbed, surrounding undisturbed lands support a salt desert shrub community.

The project area was inspected during a field visit on March 20, 2006. Reconnaissance surveys of vegetation, invasive and weedy plant species, and wildlife habitats were completed within the proposed ROWs and adjacent areas at this time. A Class III cultural resources survey within the proposed ROWs for the tank, tank access road, and water transmission main was completed on January 20, 2006.

3.4 AIR QUALITY

The project area is located within the West Central Region, Fernley area Hydrographic Basin (Sub-basin 76). This basin is designated as "unclassified" with respect to all criteria air pollutants for which there are National Ambient Air Quality standards. Unclassified areas are managed as being in attainment with the National Ambient Air Quality standards.

The NDEP Bureau of Air Quality Control is responsible for air quality permitting in the project area. Nevada Administrative Code (NAC) 445B.365 requires fugitive dust to be controlled, and requires an ongoing program to prevent particulate matter from becoming airborne. Projects disturbing more than five acres are required to obtain a surface disturbance permit from the Bureau of Air Quality Control and implement appropriate measures to control dust.

3.5 GEOLOGY, TOPOGRAPHY, AND SOILS

The project site is located on the lower north-facing slopes of foothills of the Virginia Range, at an elevation of about 4500 feet. The geology underlying the project site is mapped as Quaternary-aged alluvial deposits of alluvial fan gravel, lakes and streams and volcanic rock of Tertiary age (Moore, 1969).

Soils in the majority of the project area consist of the Biddleman association (map unit BM), which consists of nearly level soils in large and very large, broad bands that border uplands on convex, high shoreline terraces between 4,200 and 4,400 feet. The association is about 60 percent Biddleman gravely sandy loam, 0 to 8 percent slopes, and 20 percent Biddleman very stony sandy loam, 4 to 15 percent. Permeability is moderately slow in the sub-soil and moderately rapid in the sub-stratum. Runoff is slow to medium, and the hazard of erosion is slight to moderate, (SCS, 1984). The project site also includes a small area of Bluewing gravelly loamy sand, 2 to 8 percent slopes (map unit BnC), which consists of very deep, excessively drained soils formed on medium to large fan-shaped areas on alluvial fans formed from mixed rock sources between 3,800 and 4,500 feet. Permeability is rapid, runoff is slow, and the hazard of erosion by wind and water is slight to moderate (SCS, 1984). None of these soils meet criteria for prime or unique farmland (SCS, 1984).

3.6 WATER RESOURCES

There are no perennial bodies of water in the immediate project area. The proposed site is about 0.75 miles south of the Truckee Canal, which conveys irrigation water from the Truckee River to the Lahontan Reservoir. The project site is located in an upland situation on the north-facing slopes of foothills of the Virginia Range. Local drainage in the site vicinity is toward the Truckee Canal.

The proposed access road crosses a natural drainage with a defined channel that may meet the U.S. Army Corps of Engineers (ACOE) criteria for waters of the U.S. The path of this drainage is evident in Figure 5; it flows north-northeast from the site, crossing Desert Shadows Lane west of Partridge Road and ultimately flowing toward the Truckee Canal.

Existing residences in Section 27 near the project site obtain water from several individual domestic wells.

3.7 VEGETATION

Vegetation at the project site consists of low salt desert shrub habitat that includes Bailey's greasewood (*Sarcobatus baileyi*), shadscale (*Atriplex confertifolia*), spiny hop sage (*Grayia spinosa),* bud sagebrush (*Artemisia spinescens*), Nevada ephedra (*Ephedra nevadensis*), white burrobush (*Hymenoclea salsola* var. *salsola*), with some Nevada dalia (*Psorothamnus polydenius*), and princess plume (*Stanleya pinnata*). The understory consists of cheat grass (*Bromus tectorum*), Indian rice grass (*Oryzopsis hymenoides*), birdnest buckwheat *(Eriogonum nidularium),* woolstar (*Eriastrum sparsiflorum*), and bristly fiddleneck (*Amsinckia tessellata*) occur in this area. Photographs of the site area in Figures 6 and 7 show typical vegetation in the site area.

3.7.1 Invasive, Nonnative Species

Noxious weeds are designated by the BLM and State of Nevada (per NAC Section 555.010). No noxious weed species were noted within the site vicinity nor along the existing Partridge Road. Tumble mustard (*Sisymbrium altissimum*), Russian thistle (*Salsola kali*), and cheat grass (*Bromus tectorum*) were noted during the March, 2006 field reconnaissance visit to be common in disturbed areas especially along existing roads in the site vicinity. These species are non-native invasive species but are not designated as noxious weeds.

3.7.2 Wetland/Riparian Habitat

No wetland or riparian vegetation or habitat occurs on or near the project site. The natural drainage at the tank site that would be crossed by the proposed access road would likely meet ACOE criteria as a waters of the U.S. (Section 3.4). It is an ephemeral dry channel and there is no riparian vegetation nor habitat associated with the drainage in the site vicinity.

3.8 WILDLIFE

The low salt desert shrub habitat at the site supports a limited diversity of wildlife. Animals noted in this habitat during the March 20, 2006, site reconnaissance visit included horned lark (*Eremophila alpestris*), redtail hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), common raven (*Corvus corax*), and sage sparrow (*Amphispiza belli*).

The project area does not represent important habitat for big game species. The salt desert shrub habitat in the project vicinity would not represent good habitat for upland game bird species. The

project area does not include any areas of designated critical or key range for any species of wildlife (BLM, 2001).

3.8.1 Neo-Tropical Migratory Birds

On January 11, 2001, President Clinton signed Executive Order 13186 (Land Bird Strategic Plan) placing emphasis on conservation and management of migratory birds. These species are not protected under the Endangered Species Act, but most are protected under the Migratory Bird Treaty Act of 1918. No BLM policies have been developed to provide guidance on how to incorporate migratory birds into NEPA analysis. However, advise based on past USFWS Memoranda of Understandings list items the USFWS believes are fundamental for the analysis of impacts to and planning for these birds. These items are (1) effects to highest priority birds listed by Partners in Flight; (2) effects to identified Important Bird Areas (IBAs); and (3) effects to important over wintering areas.

There are no IBAs near the project site. The project site isn't within or adjacent to important over wintering areas.

The Intermountain West is the center of distribution for many western birds. Over half of the biome's Species of Continental Importance have 75 percent or more of their population here. Many breeding species from this biome migrate to winter in central and western Mexico or in the Southwestern biome. Primary habitats and suites of neo-tropical migratory birds associated with these habitats in the Intermountain West Avifaunal Biome are listed. These Partners in Flight species were chosen because they were most in need of attention at the continental scale (Rich et al, 2004)

The project site is within the salt desert scrub vegetation type, which is the most extensive habitat type in the state of Nevada, covering roughly 22 million acres (Neel, 1999). The term "salt desert scrub" actually encompasses several subtypes, characterized by the presence of a variety of generally salt-tolerant shrubs of the family Chenopodiaceae ("Goosefoot" family). Community composition is largely influenced by soil salinity and drainage. The avifauna of the salt desert scrub type is expectedly spare and lacking in diversity. Probably the most important bird species from a national conservation perspective to be found regularly in this type is the loggerhead shrike (*Lanius ludoviscianus*); another important species is the western burrowing owl (*Athene cunicularia hypugea*) (Neel, 1999). The shrub structure of the vegetation at the project site is not ideal for nesting use by the shrike; no sign or burrowing owls were noted during a survey of the project site (Section 3.9.2).

3.9 THREATENED, ENDANGERED, CANDIDATE AND SENSITIVE SPECIES

Information regarding the potential for occurrence of federal and State of Nevada listed threatened or endangered species, federally designated proposed and candidate species, and BLM-designated sensitive species was obtained by consulting with BLM, U.S. Fish and Wildlife Service (USFWS), the Nevada Natural Heritage Program (NNHP), and the Nevada Division of Wildlife. Agency correspondence is presented in Appendix B.

3.9.1 Plant Species

No federally listed, proposed or candidate plant species were indicated by the USFWS as potentially occurring in the project area. Based on review of the habitat requirements of listed and BLM

sensitive plants whose range includes Lyon and Churchill Counties (Nevada Natural Heritage Program, 2006), the project site and the surrounding areas do not contain habitat for any listed or BLM sensitive plant species. A search of the Nevada Natural Heritage database indicated no occurrences of any federal or BLM sensitive plants species for the project site and from adjacent areas within an approximate three-mile radius (Appendix B

3.9.2 Animal Species

Based on correspondence from the USFWS, federally listed, proposed, or candidate species that may potentially occur in the general project region include the yellow-billed cuckoo (*Coccyzus occidentalis*), a candidate species. Habitat for the cuckoo consists of dense riparian/riverine stands of trees, which in the west would include mature cottonwood stands along rivers. In the project region, this habitat occurs in places along the Truckee River; however the immediate project area does not contain such habitat and the species would not be expected to occur near the site vicinity. A search of the NNHP database indicated no occurrences of any federally listed or BLM sensitive animal species for the project site or from adjacent areas within an approximate three-mile radius.

The NNHP noted that the project area may include suitable habitat for the western snowy plover (*Charadrius alexandrinus nivosus*), a BLM sensitive species, and USFWS indicated concern about the pygmy rabbit (*Brachylaus idahoensis*), a BLM sensitive species. In western Nevada, western snowy plovers nest exclusively on bare or sparsely vegetated alkaline substrates near alkaline bodies of water (Herman et al, 1988). Based on the lack of this habitat, the site would not represent habitat for the plover. Pygmy rabbits generally occupy Basin or Wyoming big sagebrush habitats having large shrubs and a dense understory of suitable forage plants, with soils suitable for burrowing (Green and Flinders, 1980). The required dense big sagebrush habitat is lacking at the site. No pygmy rabbits or their burrows, nor sign were noted during the field reconnaissance survey of the site.

Based on review of the habitat requirements of federally listed and BLM sensitive animal species whose range includes Lyon and Churchill Counties (Nevada Natural Heritage Program, 2006), the general project region could contain habitat for the western burrowing owl (*Athene cunicularia hypugea*) and the loggerhead shrike (*Lanius ludoviscianus*), both BLM sensitive species. Burrowing owls occur in open habitats and nest in burrows, often excavated in earthen banks of road or agricultural fields. The proposed site and adjacent areas were searched for evidence of burrowing owls in the form of their burrows or castings. No potential nest burrows were located and no sign of burrowing owl use of the site and adjacent areas was found.

Loggerhead shrikes frequent open county, using a variety of shrub and grassland habitats, perching conspicuously on shrubs and fences. Shrikes nest in large dense shrubs. The project site and adjacent areas support few large shrubs that would be appropriate nesting habitat for loggerhead shrikes.

Based on the above discussions, the project site and adjacent areas do not represent habitat for any threatened, endangered, candidate, proposed, or BLM sensitive plant or animal species (BLM Biological Assessment and Evaluation #003-06).

3.10 LAND USE

The project site is on the southeast side of Fernley, which is one of the fastest growing cities in Nevada. Land use on private land in the project area is changing from rural and primarily undeveloped to residential subdivisions located on lots varying from less than one-half acre to a few acres. Several existing residences are located in Section 27, northeast of the proposed tank site, and several other residences are planned in this area. Figure 3 shows the location of other planned residential developments in the general area of the project site. Use of public land in the vicinity is primarily for dispersed recreation.

3.10.1 Administrative Land Uses

Based on a review of BLM master title plats for the area, one administrative use (a road/utility ROW, serial number N-43685) exists in the site area. This ROW is shown in green on Figure 3. The original ROW (issued in October, 1986) was for Desert Shadows Lane as it affects public lands in Sections 28 (traversing east and west) and Section 30 (traversing east and west) of Township 20 North, Range 25 East (Figure 3). The purpose of the ROW grant is for a road and public utilities. This ROW was amended in 1989 to include an existing access road traversing north-south across Section 28 in the eastern half of the section (Figure 3). Lyon County is the holder of record of this ROW.

With regard to future land uses, Lyon County has expressed an interest to BLM to locate a school in the northeast quarter of Section 28.

3.11 CULTURAL AND HISTORICAL RESOURCES

A professional archaeologist completed a cultural resources Class I literature review and Class III pedestrian inventory on January 20, 2006, for the proposed ROWs for the tank site (about 7 acres) and the access road and water transmission main (about 5,400 feet in length and 100 feet wide). The results of the literature review and survey are presented in *A Cultural Resources Inventory for a Water Tank Pad and Transmission Line in Fernley, NV* (Malinky and Rhyne, 2006). A historic-period resource, the Truckee Canal, is located about one-quarter mile north of the proposed project access road. The Truckee Canal is part of the 1903-1905 Newlands Project construction and represents a significant cultural resource. It has already been nominated to the National Register of Historic Places. No other prehistoric or historic resources are known to exist within one-half mile of the proposed ROWs. Based on the Class III inventory and BLM review, there are no cultural resources within the proposed Area of Potential Effect.

3.12 VISUAL RESOURCES

No specific Visual Resource Management (VRM) designation is determined in the project area in the Carson City Field Office *Consolidated Resource Management Plan* (BLM, 2001). Areas with no formally determined designation are managed as VRM Class III areas (Young, 2006). Management objectives for Class III VRM areas are to "partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer".

The project area is located in low rolling hills southeast of Fernley and south of the Truckee Canal. The area is visible from Desert Shadows Lane, a gravel road that roughly parallels the southern side of the Truckee Canal. The area is also visible from existing residences located on private lands

northeast of the proposed water tank site. Colors in the area of the project site range from yellow patches of cheatgrass and tumble mustard to the gray-green color typical of much vegetation in the Great Basin. Soil colors are generally tan to brown. Linear elements derive from existing roads, including Partridge Road, the road that accesses both the subdivision and the proposed project site. Within the subdivision, additional linear elements are provided by roads, wooden fences, and houses.

3.13 NATIVE AMERICAN RELIGIOUS CONCERNS

Consultation letters from BLM Carson City Field Office soliciting information from Native American tribes in the project area and inviting the tribes to enter into consultation for the proposed project are being sent by BLM to the Reno Sparks Indian Colony, Pyramid Lake Paiute Tribe, and Fallon Paiute Shoshone Tribe. Consultation is on-going.

CHAPTER 4
ENVIRONMENTAL CONSEQUENCES

This chapter describes the potential effects that may result from the Proposed Action or alternatives, and identifies appropriate mitigation measures and monitoring needs. Cumulative effects are discussed in Section 4.5.

4.1 PROPOSED ACTION

4.1.1 Air Quality

Project construction would result in a short-term increase in release fugitive dust associated with grading and pipeline excavation. The City of Fernley would be required to obtain a surface disturbance permit from the NDEP and complete a dust control plan that would include measures to control dust such as frequent watering of disturbed areas. No additional measures are proposed to maintain air quality.

4.1.2 Soils and Geology

Soils that would be affected by project construction (Biddleman gravelly sandy loam, slopes 0 to 8 percent, Biddleman very stony sandy loam, slopes 4 to 15 percent, and Bluewing gravelly loamy sand, slopes 2 to 8 percent) exhibit a slight to moderate erosion hazard by wind and water (SCS, 1984). Project construction would result in about four acres of new disturbance to soils (about 2.5 acres of construction would be within existing disturbance along Partridge Road).

4.1.3 Water Resources

There are no natural perennial bodies of water in the immediate area of the site. Construction of the proposed access road would cross a natural drainage that may meet ACOE criteria as a waters of the U.S. As discussed in Section 2.1.2, a 36-inch culvert would be constructed beneath the new access road to perpetuate natural drainage in this channel. The inflow and outflow of the culvert would be protected with rock rip-rap (Figure 4). Notification to the ACOE would be completed prior to construction. Appropriate BMPs per the ACOE would be incorporated during construction and in design to ensure protection of surface waters.

As discussed in Section 2.1.7, the City would also be required to obtain a General Construction Stormwater Permit and complete a Stormwater Pollution Prevention Plan that would include appropriate BMPs to protect surface waters during construction. With implementation of these BMPs, there would be no adverse effects to surface water.

No new wells would be developed to supply the proposed Highlands SE Tank. The existing City Well No. 4, in operation since 1992, would supply water for the proposed tank. This well is located about 4.5 miles from the domestic wells in Section 27 that supply residences in the vicinity of the Proposed Action. Operation of this well would have no potential to affect these domestic wells.

4.1.4 Vegetation

Construction of the proposed tank and access road would permanently disturb about four acres of natural vegetation consisting of low desert salt shrub habitat. Construction of the proposed water

transmission main would occur within existing disturbance represented by Partridge Road. The natural vegetation that would be affected by project construction is of relatively poor quality and is common and abundant in the surrounding area. The permanent removal of about four acres of this vegetation type would represent a minimal loss.

4.1.4.1 Invasive, Nonnative Species

No noxious weeds were identified within the project site. Disturbed areas in the site area support tumble mustard, Russian thistle, and cheat grass. These species could potentially colonize areas disturbed by project construction. As part of the Environmental Protection Measures incorporated into the Proposed Action (Section 2.1.7), the City of Fernley would include the water tank site, access road, and shoulders of Partridge Road in their weed management areas. The City would be responsible for coordination with BLM for any requirement for seeding of the road shoulders and fill slopes and regarding other acceptable weed control measures.

4.1.5 Wildlife

Project construction would permanently remove about four acres of low salt desert shrub habitat (about 2.5 acres of project construction for the water transmission main would occur within existing disturbance for Partridge Road). The site represents poor quality and relatively degraded wildlife habitat. The project area does not contain any designated critical habitat or key range for any species of wildlife. The Proposed Action would result in minimal adverse effects to local wildlife populations.

4.1.5.1 Neo-Tropical Migratory Birds

The habitats in the project area represent relatively poor quality nesting habitat for migratory birds. Project construction is scheduled for the late fall and winter, outside of the migratory bird nesting season. Therefore, no effects to migratory birds would occur from the Proposed Action.

As part of the Environmental Protection Measures incorporated into the Proposed Action, in the event that project construction is delayed and/or would require vegetation clearing during the migratory bird nesting season (generally May 14 through July 30), areas to be disturbed would be surveyed by a qualified biologist prior to disturbance. If active nests are located, a protective buffer would be delineated around these nests within which disturbance would be avoided until the young have fledged. The size of the protective buffer would be determined in coordination with BLM and based upon specific species requirements.

4.1.6 Threatened, Endangered, Candidate and Sensitive Species

As discussed in Section 3.9, the proposed site and adjacent areas do not contain habitat for any threatened, endangered, candidate, or proposed plant or animal species nor for any BLM sensitive plant and animal species. Therefore, project construction would have no potential to adversely affect any listed or BLM sensitive species.

4.1.7 Land Use and Administrative Land Uses

The proposed water supply tank and transmission main would support on-going and planned residential development on private land in the site area. The Proposed Action would be compatible with uses of public land in the project vicinity, including those for potential future school purposes. There would be no potential for conflict with the existing BLM administrative land use (ROW N-43685) in the project vicinity. The City of Fernley is coordinating with Lyon County to obtain

approval for construction of the Desert Shadows water transmission main within the ROW (described in Section 2.1.3) or to transfer the ROW to the City.

Project construction would represent a temporary and short-term inconvenience to nearby residences east of Partridge Road, in Section 27. The inconveniences would be in the form of an increase in traffic on Partridge Road and Desert Shadows Lane from construction vehicles, construction noise, and a small increase in fugitive dust. The period of construction would last about three months. Environmental Protection Measures incorporated into the Proposed Action (Section 2.1.7), including watering for dust control and limiting of construction to the hours between 7:00 am and 5:00 pm, would reduce potential inconveniences during construction.

There would be no noise from operation of the tank; no routine pumping or operation of equipment would be associated with tank operations. Routine inspection and maintenance visits (Section 2.1.6) would represent a negligible increase in traffic on Partridge Road or Desert Shadows Lane. The 1,250-foot tank access road leading from Partridge Road to the fenced tank site would not provide increased access to the undeveloped land surrounding the tank site. The cyclone security fencing surrounding the tank would preclude access to the tank by unauthorized individuals. As discussed in Section 4.1.3, operation of the existing City Well No. 4 would have no potential to affect water levels in domestic wells that serve residences in the tank vicinity.

Visual effects of the proposed tank on nearby residences would be mitigated by selection of an appropriate color for the tank to blend with the surrounding topography and by construction of an earthen berm on the down slope sides of the tank within the line-of-sight from the residential area in Section 27 east of Partridge Road. The berm would provide partial visual screening of the tank from view from the residential area. Visual considerations are discussed in Section 4.1.9. With these mitigations in place, the presence of the proposed tank should have minimal adverse effects on these properties.

The proposed water supply tank would represent an opportunity for existing residences that presently obtain domestic water from wells to hook up to the City water system. The proposed tank would have a positive effect on fire protection services for the adjacent area, because connections for fire hydrants would be provided along Partridge Road. The proposed tank and provision of City water services would increase the likelihood of development of high value residences on undeveloped parcels in the vicinity of the existing residences. All of these considerations would be expected to have an overall positive effect on property values of existing residences.

4.1.8 Cultural Resources

No prehistoric or historic period cultural resources sites were located within the proposed ROWs for the tank, tank access road, and water transmission main. A single historical property, the Truckee Canal, is located about 0.25 miles from the north end of the Area of Potential Effect (Malinky and Rhyne, 2006). The canal is located adjacent to a major transportation corridor that has already seen significant development. Relative to the current proposed action in this portion of the project area, activity is projected to be limited to an access road and utilities. Based on the nature and extent of the proposed action, BLM has determined that the proposed project would have no adverse affect on historic properties, including no impact on the viewscape (setting or feeling) of the canal. The State Historic Preservation Office has received documentation on the 2006 cultural resources inventory and consultation per the Nevada BLM/SHPO protocol agreement.

4.1.9 Visual Resources

To assess the visual effects of the proposed water tank, two Key Observation Points (KOPs) were established to evaluate the visibility and visual contrast of the proposed water tank. The KOPs were established at the intersection of Desert Shadows Lane and Partridge Road and within the residential area located in Section 27 east of Partridge Road. Figure 5 shows the location of the selected KOPs. The KOPs represent typical views that residents of the area and travelers on the main roads would have of the proposed tank. Visual Contrast Rating worksheets were completed at each KOP (BLM, 1986); completed worksheets are contained in Appendix C. Additionally, visual photo-simulations were completed from each KOP. The visual simulations represent the view of the constructed tank as it would appear with the earthen berm in place. This berm was incorporated into the Proposed Action to provide visual screening (Section 2.1.7 and 3.1.1) to reduce visual contrast of the tank.

KOP A is located at the intersection of Desert Shadows Lane and Partridge Road, just under one mile from the tank site. The pre- and post-construction visual simulations from this KOP are presented in Figure 7. The view is to the south down Partridge Road and toward the proposed tank site. The views of the tank from KOP A represent those that travelers on Desert Shadows Lane would have of the proposed tank.

Based on the visual contrast ratings and the photo-simulations, the proposed tank would result in a "weak to moderate" degree of contrast for the elements of form, line, color, and texture from KOP A. The outline of the tank would not project above the natural skyline of the ridge; the tank would be viewed against the background of the hillside. Additionally, the earthen berm would provide partial visual screening of the tank. The change to the landscape would be moderate, and the proposed tank would not dominate the view of the casual observer. The proposed Project would be consistent with BLM VRM Class III management objectives.

KOP B is located within the residential area in Section 27 east of Partridge Road, at the intersection of Richards Way and Alta Vista. The view is toward the southwest over this intersection toward the proposed tank site, located about one-half mile from KOP B. The pre- and post-construction visual simulations from this KOP are presented in Figure 8. The view of the tank from KOP B represents the view that many of the homeowners in the residential area in Section 27 would have of the proposed tank. Based on the closer proximity, the water tank would be more visible from this location. However, because the view of the tank would be against the background hills, the tank should not be a main focus of attention. Although the proposed tank would not strongly contrast with the background of the hillside, it would alter the current view of the hillside from the adjacent residences. As part of the Environmental Protection Measures incorporated into the Proposed Action (Section 2.1.7), the City would coordinate with BLM to select an appropriate color for the proposed tank to blend with the existing topography and vegetation. Also, as discussed in Sections 2.1.7 and 3.1.1, based on coordination with local residents, a ten-foot-high earthen berm has been incorporated into the Proposed Action to provide partial screening of the tank. The berm would further reduce the visual contrast of the proposed tank with the surrounding hillside by providing partial visual screening. With these measures in place, the visual effects from the Proposed Action would be reduced.

4.1.10 Native American Religious Concerns

Consultation with Native American tribes is on-going. However, to date, no response has been

received by BLM Carson City Field Office from the Reno Sparks Indian Colony, Pyramid Lake Paiute Tribe, and Fallon Paiute Shoshone Tribe relative to the proposed action. If information is received by BLM in the future related to Native American Religious Concerns, these concerns would be incorporated into planning and maintained as confidential.

4.2 ALTERNATIVES

4.2.1 No Action Alternative

Under The No Action Alternative, the ROWs across public land for the proposed water supply/storage tank and water transmission main would not be granted. A new water supply/storage tank is required to meet increased water demand from new residential users associated with on-going and planned developments in the project area. The tank is also necessary to maintain adequate water pressure for residential users and for fire protection services in the area. Without a new water supply tank in the general project area, the reliability of the City's current water system in the area would be jeopardized. As discussed in Section 2.2.1, under the No Action scenario, the City would be forced to select another site for the tank and route for the water transmission main across private property in the general project area. Therefore, the environmental effects of the No Action Alternative would be similar in nature, but not in location, to those of the Proposed Action. Selection of another site for the tank would result in a delay in construction based on property acquisition and engineering requirements and associated increased costs to the City and its water users.

4.3 MITIGATION MEASURES

As discussed in Section 3.1, based on public comment and participation in on-site meetings, a ten-foot-high earthen berm is incorporated into project design and construction to provide partial screening of the tank from view. The berm would mitigate visual effects of the tank. This mitigation and other Environmental Protection Measures and BMPs are incorporated into the Proposed Action to avoid or reduce impacts (Section 2.1.7). No further mitigation would be required.

4.4 RESIDUAL IMPACTS

With the successful implementation of the Environmental Protection Measures and BMPs incorporated into the Proposed Action (Section 2.1.7), the proposed project would result in only minimal residual impacts. The constructed tank site, access road, and re-established Partridge Road (in the area of the buried water transmission main) would represent a permanent loss of natural vegetation of about 6.5 acres.

4.5 CUMULATIVE IMPACTS

The CEQ regulations implementing NEPA require that the cumulative impacts of a Proposed Action be assessed (40 CFR Parts 1500-1508). A cumulative impact is an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions" (40 CFR § 1508.7). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR Section 1508.7).

The area from which potential cumulative projects were drawn is the general area of the project site, within a few mile radius. Past and present actions in the cumulative area combine to form existing conditions, which are described in Chapter 3. Past and existing uses include several residences located in Section 27, about one mile northeast of the proposed tank site.

Foreseeable future projects include the Proposed Action, on-going and planned residential development in the area and a new elementary school. The proposed tank site also contains room for a potential future second tank, although there are no firm plans to construct such. A second tank at the site would not involve any additional disturbance beyond that for the Proposed Action.

The locations of planned residential developments in the area are shown on Figure 3. The Proposed Action is responding to an immediate need to address requirements for increased water supply, water pressure and water storage needs associated with future development of these planned residential developments in the project vicinity: Together, they will represent approximately 1,300 new homes in the project area. Effects to natural resources from construction of the proposed water tank and water transmission main would be cumulative with the effects of construction of these new single-family homes. As discussed in Section 4.1, the Proposed Action would have limited effects on environmental resources, which would be reduced by several Environmental Protection Measures incorporated into the Proposed Action. Therefore, construction of the proposed project would have negligible cumulative impact. Planned residential development in the area would have a more substantial cumulative contribution to environmental effects. These and other cumulative effects of planned development in the form of increased traffic and other concerns are addressed in on-going planning by the City of Fernley and Lyon County in the form of land use planning, zoning, and development ordinances. Appropriate mitigation for these cumulative effects are contained in the long range planning documents of these agencies.

4.6 MONITORING

Monitoring would be conducted on the proposed ROW during construction and periodically thereafter by BLM personnel.

CHAPTER 5
CONSULTATION AND COORDINATION

5.1 LIST OF PREPARERS

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CHAPTER 6
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APPENDIX A

PUBLIC SCOPING

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Carson City Field Office
5665 Morgan Mill Road
Carson City, Nevada 89701
http://www.nv.blm.gov

TAKE PRIDE IN AMERICA

In Reply Refer To:
2800
N-81754
(NV-033)

MAY 03 2006

Dear Landowner:

The City of Fernley has applied to the U.S. Bureau of Land Management (BLM), Carson City Field Office, for a right-of-way to construct, operate, and maintain a new 3-million-gallon water storage tank, and associated water transmission main and access road on public lands in Section 28, Township 20 North, Range 25 East. BLM is currently preparing an environmental assessment to address the effects of the project.

The new tank is proposed to meet increasing water user demand and fire protection requirements associated with on-going and planned residential development in the project vicinity. The location of the proposed tank and access road is shown on the enclosed maps.

The water tank would be constructed against the hillside at an elevation of about 4500 feet. The top of the tank would not extend above the natural skyline. The tank would be 116 feet in diameter and 40 feet high and would be painted a color to blend with the natural landscape. Security fencing would enclose the tank site and berming and/or landscaping would be considered to mitigate visual impacts. A gravel access road would be constructed from Partridge Way to the tank site. The road would be approximately 1000 ft. in length and 20 ft. in width. A new water transmission main would be constructed within the tank access road and within the right-of-way for Partridge Way to connect to the existing water system at Desert Shadows Lane.

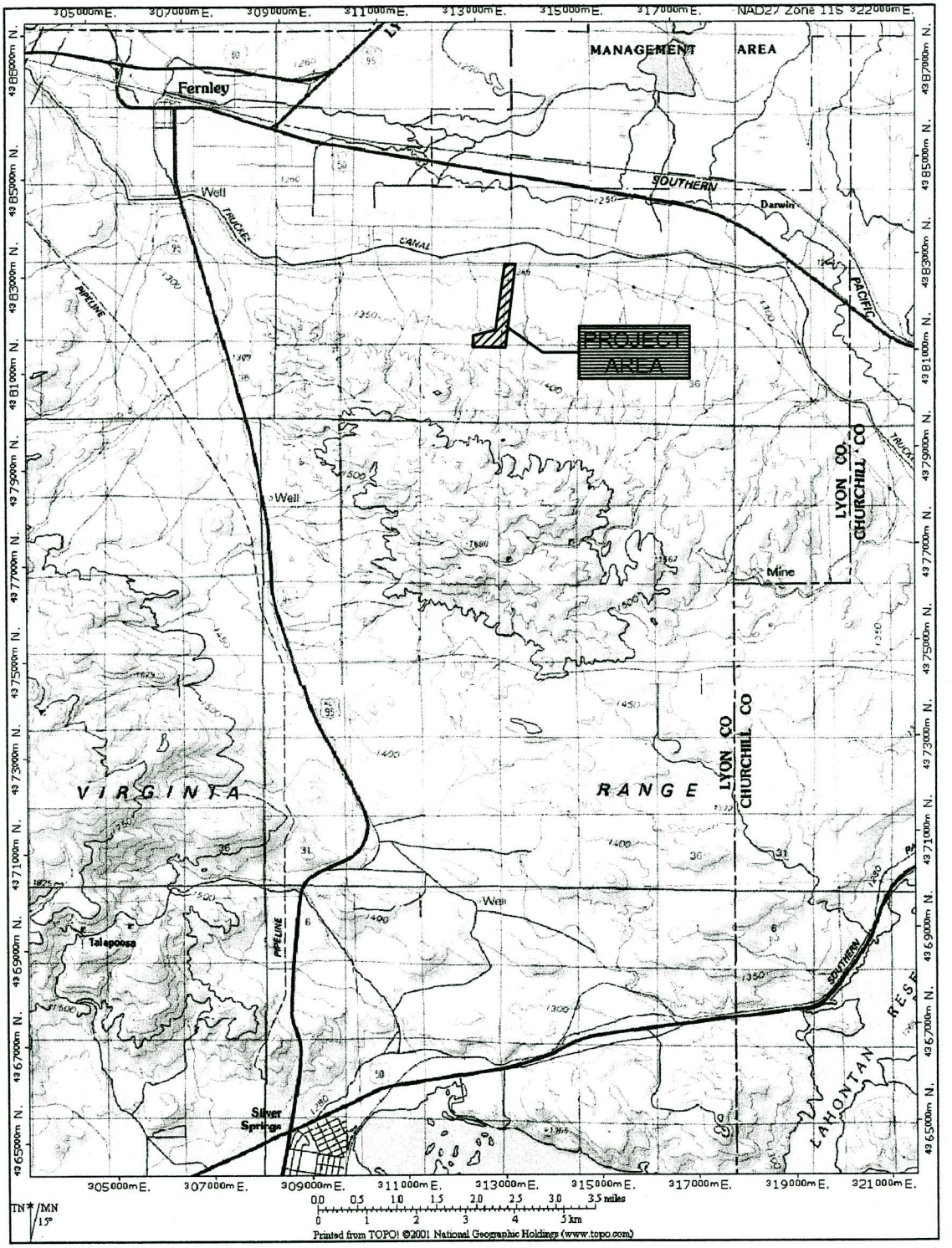
The purpose of this letter is to notify you, as a nearby landowner, of the proposed project. If you have concerns about how the project may affect you, your written comments are requested by June 7, 2006. Any questions should be directed to Ken Nelson, Realty Specialist, at 775/885-6144, or Desna Young, Environmental Coordinator, at 775/885-6078.

Sincerely,

Charles P. Pope

Charles P. Pope
Assistance Manger, Non-renewable Resources
Carson City Field Office

2 Enclosures:
1. Location Map
2. Project Facilities

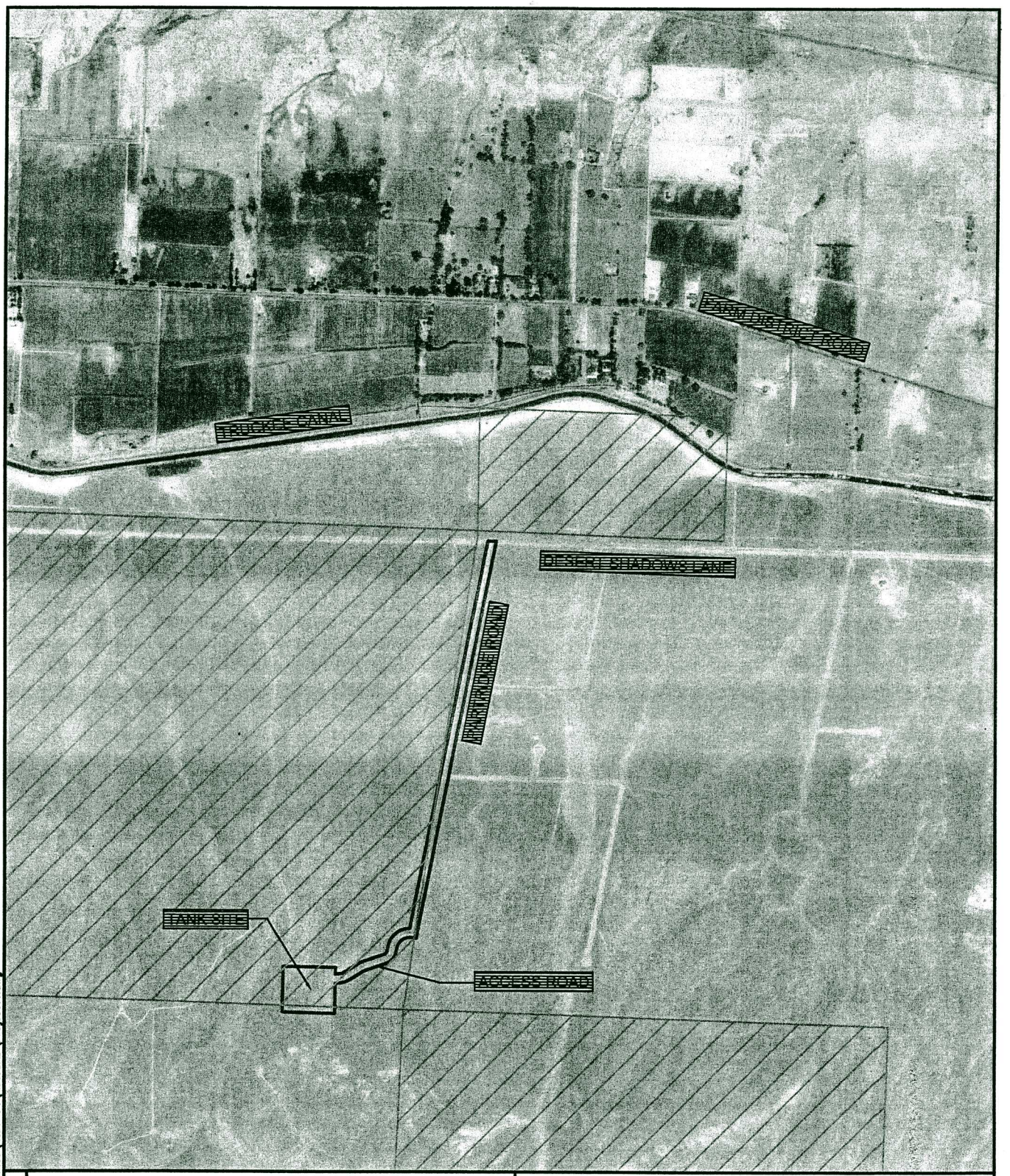


CITY OF FERNLEY
HIGHLANDS SE WATER TANK PROJECT

FIGURE 1
GENERAL LOCATION

DATE DRAWN 04/07/06

FILE NAME: P:\2006-Clients\R&K Homes\R&K-04\AutoCAD\Project1.dwg



BASE IMAGE: USGS DOQQ

PROJECT BOUNDARY

BLM LAND

N

1500 0 1500 FEET

CITY OF FERNLEY

HIGHLANDS SE WATER TANK PROJECT

FIGURE 2
PROPOSED PROJECT
PRIVATE & PUBLIC LANDS

DATE DRAWN 04/07/06

FILE NAME: P:\2006-Clients\R&K Homes\R&K-04\AutoCAD\Project1.dwg

021-302-62
Raymond and Jill Litzinger
P.O. Box 2797
Ft. Leonard Wood, MO 65473

021-302-61
Sydney T H and Hoa T TRS Le
635 Farm Circle
Fernley, NV 89408

021-302-60
Entrust Administration, INC
c/o Janet Brown
180 Grand Ave, Ste. 130
Oakland, CA 94612

021-303-10
How Tzu Huang
Lujhou City Taipei County 247
1F NO2 Alley5 Lane 96
Mincyuan Rd. Taiwan 00000

021-481-04
Albert & Sharon Beatty
260 Arrow Street
Fernley, NV 89408

021-481-05
James Eldon Stewart
4176 Falcon Drive
Fallon, NV 89406

021-481-06
Gretchen M. Verling
617 Winter Pl.
Fernley, NV 89408

021-481-07
William F. & Ute Conley
9128 Western Skies Dr.
Reno, NV 89521

021-481-08
Peter R. Wysocki
3380 Drayer Ln.
Fernley, NV 89408

021-481-09
Mark & April Homme
130 Curry Dr., #3
Fernley, NV 89408

021-481-10
Darris & Sharon Daniel
1016 Scott Dr.
Fernley, NV 89408

021-481-11
PVTO Ltd.
P.O. Box 6682
Reno, NV 89513

021-481-12
Chruchill West, LLC
P.O. Box 5010
Fallon, NV 89407

021-481-41
Delwin & Violet Granfield
2113 Kellogg Wy.
Rancho Cordova, CA 95670

021-481-42
Delwin & Violet Granfield
2113 Kellogg Wy.
Rancho Cordova, CA 95670

021-481-43
Delwin & Violet Granfield
2113 Kellogg Wy.
Rancho Cordova, CA 95670

021-481-44
Wayne & Jennifer Schmuelgen
3380 Richards Wy.
Fernley, NV 89408

021-481-45
Paul R. Merlin
3370 Richards Wy.
Fernley, NV 89408

021-481-46
John P. Stewart
3360 Richards Wy.
Fernley, NV 89408

021-481-47
Steven J. McElmeel
P.O. Box 1486
Fernley, NV 89408

021-481-51
Sierra West Development
P.O. Box 1183
Fernley, NV 89408

021-481-52
Bryant Thomas and Linda Gorman
3347 Richards Wy.
Fernley, NV 89408

021-481-53
Peter & Cynthia Wagg
3365 Richards Wy.
Fernley, NV 89408

021-481-54
John & Jacqueline Vye
3375 Richards Wy.
Fernley, NV 89408

021-481-59
Leonard & Joanne Osborne
1950 Alta Vista Wy
Fernley, NV 89408

021-481-60
Russell & Norma Delong
1920 Alta Vista Wy.
Fernley, NV 89408

021-481-61
Wendy Hershey
1935 Alta Vista Wy
Fernley, NV 89408

021-481-62
Sierra West Development
P.O. Box 1183
Fernley, NV 89408

City of Fernley
City Commission
595 Silver Lace Boulevard
Fernley, NV 89408

Lyon County Commission
27 S. Main
Yerington, NV 89447

APPENDIX B

AGENCY CORRESPONDENCE

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Nevada Fish and Wildlife Office
1340 Financial Blvd., Suite 234
Reno, Nevada 89502
Ph: (775) 861-6300 ~ Fax: (775) 861-6301

March 21, 2006
File No. 1-5-06-SP-099

Ms. Kathleen Oakes
5355 Kietzke Lane
Suite 100
Reno, Nevada 89511

Dear Ms. Oakes:

Subject: Species List for the City of Fernley Water Tank and Access Road, Lyon County, Nevada (T20N, R25E, Section 28)

This responds to your letter received on March 9, 2006, requesting a species list for a proposed 3-million-gallon water tank and associated 20-foot wide, 1,300-foot long access road to be located on the southeast side of Fernley in Lyon County, Nevada. To the best of our knowledge, no listed or proposed species or critical habitat occur in the subject project area, however, the candidate species, yellow-billed cuckoo (*Coccyzus americanus*), may be found. This list fulfills the requirement of the Fish and Wildlife Service (Service) to provide information on listed species pursuant to section 7(c) of the Endangered Species Act of 1973, as amended (Act), for projects that are authorized, funded, or carried out by a Federal agency. Candidate species receive no legal protection under the Act, but could be proposed for listing in the near future. Consideration of these species during project planning may assist species conservation efforts and may prevent the need for future listing actions.

The Nevada Fish and Wildlife Office no longer provides species of concern lists. Most of these species for which we have concern are also on the sensitive species list for Nevada maintained by the State of Nevada's Natural Heritage Program (Heritage). Instead of maintaining our own list, we are adopting Heritage's sensitive species list and partnering with them to provide distribution data and information on the conservation needs for sensitive species to agencies or project proponents. The mission of Heritage is to continually evaluate the conservation priorities of native plants, animals, and their habitats, particularly those most vulnerable to extinction or in serious decline. Consideration of these sensitive species and exploring management alternatives early in the planning process can provide long-term conservation benefits and avoid future conflicts.

For a list of sensitive species by county, visit Heritage's website at www.heritage.nv.gov. For a specific list of sensitive species that may occur in the project area, you can obtain a data request form from the website or by contacting Heritage at 901 South Stewart Street, Suite 5002, Carson City, Nevada 89701, (775)-684-2900. Please indicate on the form that your request is being obtained as part of your coordination with the Service under the Act. During your project analysis, if you obtain new information or data for any Nevada sensitive species, we request that you provide the information to Heritage at the above address. Furthermore, certain species of fish and wildlife are classified as protected by the State of Nevada (see http://www.leg.state.nv.us/NAC/NAC-503.html). Before a person can hunt, take, or possess any parts of wildlife species classified as protected, they must first obtain the appropriate license, permit, or written authorization from the Nevada Department of Wildlife (visit http://www.ndow.org or call (775)-688-1500).

We are concerned that the project may impact the pygmy rabbit (*Brachylagus idahoensis*). On May 20, 2005, the Service published a non-substantial 90-day finding determination on a petition to list the pygmy rabbit as threatened or endangered under the Act. Though the pygmy rabbit is not currently a federally-listed species, we continue to monitor the species' status, and we remain concerned about impacts to pygmy rabbit populations. Draft survey guidelines have been developed for this species and are available upon request from the Nevada Fish and Wildlife Office. We encourage you to survey the proposed project area for pygmy rabbits prior to any ground disturbing activities and to consider the needs of this species as you complete project planning and implementation.

Based on the Service's conservation responsibilities and management authority for migratory birds under the Migratory Bird Treaty Act of 1918 (MBTA), as amended (16 U.S.C. 703 *et seq.*), we are concerned about potential impacts the proposed project may have on migratory birds in the area. Given these concerns, we recommend that any land clearing or other surface disturbance associated with proposed actions within the project area be timed to avoid potential destruction of bird nests or young, or birds that breed in the area. Such destruction may be in violation of the MBTA. Under the MBTA, nests (nests with eggs or young) of migratory birds may not be harmed, nor may migratory birds be killed. Therefore, we recommend land clearing be conducted outside the avian breeding season. If this is not feasible, we recommend a qualified biologist survey the area prior to land clearing. If nests are located, or if other evidence of nesting (*i.e.*, mated pairs, territorial defense, carrying nesting material, transporting food) is observed, a protective buffer (the size depending on the requirements of the species) should be delineated and the entire area avoided to prevent destruction or disturbance to nests until they are no longer active.

Please reference File No. 1-5-06-SP-099 in future correspondence concerning this species list. If you have any questions or require additional information, please contact me or David Potter at (775) 861-6300.

Sincerely,

Selena J. Werdon

for Robert D. Williams
Field Supervisor

Nevada Natural Heritage Program

Nevada Department of Conservation and Natural Resources
Richard H. Bryan Building
901 South Stewart Street, suite 5002 • Carson City, Nevada 89701-5245, U.S.A.
tel: (775) 684-2900 • internet: http://heritage.nv.gov

14 March 2006

Kathleen Oakes
JBR Environmental Consultants, Inc.
5355 Kietzke Lane, Suite 100
Reno, NV 89511

RE: Data request received 10 March 2006

Dear Ms. Oakes:

We are pleased to provide the information you requested on endangered, threatened, candidate, and/or at risk plant and animal taxa recorded within or near the City of Fernley Water Tank Site and Access Road (JBR Project Code R&K-04) project area. We searched our database and maps for the following, a two kilometer radius around:

Township 20N Range 25E Section 28

There are no at risk taxa recorded within the given area. However, habitat may be available for the sand cholla, *Opuntia pulchella*, a Taxon determined to be Imperiled by the Nevada Natural Heritage Program (NNHP) as well as a state protected Cacti under NRS 527.060-120; the Nevada viceroy, *Limenitis archippus lahontani*, a Taxon determined to be Critically Imperiled by the NNHP; and the Western Snowy Plover, *Charadrius alexandrinus nivosus*, a Nevada Bureau of Land Management Sensitive Species. We do not have complete data on various raptors that may also occur in the area; for more information contact Ralph Phenix, Nevada Division of Wildlife at (775) 688-1565. Note that all cacti, yuccas, and Christmas trees are protected by Nevada state law (NRS 527.060-.120), including taxa not tracked by this office.

Please note that our data are dependent on the research and observations of many individuals and organizations, and in most cases are not the result of comprehensive or site-specific field surveys. Natural Heritage reports should never be regarded as final statements on the taxa or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments.

Thank you for checking with our program. Please contact us for additional information or further assistance.

Sincerely,

Eric S. Miskow
Biologist III/Data Manager

APPENDIX C

VISUAL CONTRAST RATING WORKSHEETS

Form 8400-4
(September 1985)

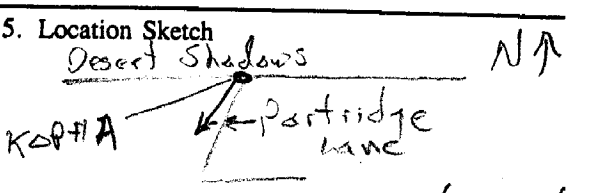
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date: March 30, 2006
District: Carson City
Resource Area: Lahontan
Activity (program): ROW

SECTION A. PROJECT INFORMATION

1. Project Name: Highlands SE Water Tank ROW's
2. Key Observation Point: KOP #1, Desert Shadows + Partridge
3. VRM Class: None assigned; Manage as Class III
4. Location
   Township: 20N
   Range: 25E
   Section: 28
5. Location Sketch



SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Fore ground (F): Flat mid ground (m): Rolling Background (B): Rolling	F: Patchy, rounded, low m: Uniform, low B: Indistinct, low	F: None m: Irregular, blocky B: Irregular, blocky
LINE	F: Bold, broken, parallel m: Broken, parallel, undulating B: Curving, undulating	F: Broken m: Regular, continuous B: Weak	F: None M: Irregular B: Irregular
COLOR	F: Gray and tan m: Tan and brown B: Tan	F: yellow and gray-green M: Gray-green B: Yellow and gray-green	F: None m: Gray, red-brown and black B: Gray
TEXTURE	F: medium, patchy M: Smooth, uniform B: medium, subtle	F: coarse m: Smooth B: Patchy	F: None M: Scattered B: Scattered

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	F: Flat M: Rolling B: Rolling	F: Patchy, rounded, low m: Uniform, low B: Indistinct, low	F: None m: Irregular, blocky B: Blocky, irregular
LINE	F: Bold, broken, parallel m: Broken, parallel, undulating B: Curving, undulating	F: Broken M: Regular, continuous B: Weak, Straight	F: None M: Irregular B: Irregular, broken
COLOR	F: Gray and tan m: Tan and brown B: Tan	F: Yellow and gray-green M: Gray-green B: Yellow and gray-green	F: None M: Gray, red-brown and black B: Gray, Tan
TEXTURE	F: Medium, patchy M: Smooth, uniform B: Medium	F: Coarse m: Smooth B: Patchy	F: None M: Scattered B: Scattered to patchy

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST

ELEMENTS	FEATURES: LAND/WATER BODY (1) Strong	Moderate	Weak	None	VEGETATION (2) Strong	Moderate	Weak	None	STRUCTURES (3) Strong	Moderate	Weak	None
Form			✓			✓				✓		
Line			✓			✓				✓		
Color			✓			✓				✓		
Texture			✓			✓				✓		

2. Does project design meet visual resource management objectives? ☒ Yes ☐ No (Explain on reverse side)

3. Additional mitigating measures recommended ☒ Yes ☐ No (Explain on reverse side)

Evaluator's Names: David Worley
Date: March 30, 2006

SECTION D. (Continued)

Comments from item 2.

yes, the proposed project meets the objectives of a VRM Class III. The water tank will be visible from the intersection of Desert Shadows and Partridge Lane, but the level of change will be weak to moderate and will not dominate the view of the casual observer.

Additional Mitigating Measures (See item 3)

The water tank should be painted a cryptic color, such as tan or gray-green, to help blend the tank with the background colors.

☆U.S. GOVERNMENT PRINTING OFFICE: 1985—461-988/33094

Form 8400-4
(September 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date: March 30 2006
District: Carson City
Resource Area: Lahontan
Activity (program): ROW

SECTION A. PROJECT INFORMATION

1. Project Name: Highlands SE water Tank ROWs
2. Key Observation Point: KOP#B Alta Vista + Richards
3. VRM Class: None assigned: Manage as Class III
4. Location
   Township: 20N
   Range: 25E
   Section: 28
5. Location Sketch: Desert shadows
   Partridge Ln
   Richards
   KOP# B
   Alta Vista
   Proposed tank Location-O

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	F: Foreground (F): Rolling M: midground (M): Rolling B: Background (B): Rolling	F: Patchy, broken M: Patchy, low B: Uniform, low	F: None M: Prominent, rectangular B: None
LINE	F: Bold, perpendicular M: Angular B: Undulating	F: Broken M: Irregular B: weak	F: None M: Bold, rectangular B: None
COLOR	F: Gray M: Tan B: Tan	F: yellow, gray-green, brown M: yellow, gray-green B: gray-green	F: None M: ochre, brown, white B: None
TEXTURE	F: Directional M: Disjointiness, patchy B: medium, subtle	F: coarse, patchy M: Patchy B: Smooth	F: None M: Directional B: None

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	F: Rolling M: Rolling B: Rolling	F: Patchy, Broken M: Patchy, low B: Uniform Low	F: None M: Prominent, rectangular B: None
LINE	F: Bold, perpendicular M: Angular B: Undulating	F: Broken M: Irregular, Angular B: weak	F: None M: ochre, brown, white, tan B: None
COLOR	F: Gray M: Tan B: Tan	F: yellow, gray-green, brown M: yellow, gray-green B: Gray-Green	F: None M: Ochre, brown, white, tan B: None
TEXTURE	F: Direction M: Disjointiness, Patchy B: Medium, Subtle	F: Coarse, patchy M: Patchy B: Smooth	F: None M: Directional, Patchy B: None

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST

ELEMENTS	FEATURES: LAND/WATER BODY (1) Strong	Moderate	Weak	None	VEGETATION (2) Strong	Moderate	Weak	None	STRUCTURES (3) Strong	Moderate	Weak	None
Form		✓				✓				✓		
Line		✓				✓				✓		
Color		✓				✓				✓		
Texture		✓				✓				✓		

2. Does project design meet visual resource management objectives? ☒ Yes ☐ No (Explain on reverse side)

3. Additional mitigating measures recommended ☒ Yes ☐ No (Explain on reverse side)

Evaluator's Names: David Worley
Date: March 30, 2006

SECTION D. (Continued)

Comments from item 2.

yes, the proposed project meets the objectives of a VRM class III. The water tank will be visible from the intersection of Desert Shadows and Partridge Lane, but the level of change will be weak to moderate and will not dominate the view of the casual observer.

Additional Mitigating Measures (See item 3)

The water tank should be painted a cryptic color, such as tan or gray-green, to help blend the tank with the background colors.

☆U.S. GOVERNMENT PRINTING OFFICE: 1985—461-988/33094